

## **REMARKS**

This is a full and timely response to the outstanding non-final Office Action mailed July 26, 2007. Upon entry of the amendments in this response, claims 1-12 remain pending. Presently, claims 1-12 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over unpatentable over U.S. Patent Number 7,082,107 ("*Arvelo*") in view of U.S. Pub. Number 2004/0248609 ("*Tamura*"). Applicant respectfully requests reconsideration and withdrawal of the rejections for at least the reasons that follow.

### **I. Fundamental Distinction of Claimed Embodiments of *Arvelo* and *Tamura***

There are several fundamental differences between each of the claimed embodiments and the teachings of the cited *Arvelo* and *Tamura* patents. To illustrate at least one of these fundamental distinctions, claim 1 recites:

1. A method for output power dithering for improved transmitter performance, the method comprising:  
    ***transmitting a plurality of packets at a first output power,***  
    determining a first error rate associated with the transmission of the plurality of packets at the first output power;  
    ***transmitting the plurality of packets at at least one second output power different from the first output power,***  
    determining at least one second error rate associated with the transmission at the at least one second output power; and  
    identifying a desired output power based at least in part on a comparison between the first error rate and the at least one second error rate.

(*Emphasis added*). As emphasized above, claim 1 defines two separate transmissions of a single plurality of packets. The first recites the transmission of "a plurality of packets at a first output power." The second recites the transmission of "**the** plurality of packets at at least one **second output power different from the first output power.**" As previously communicated, the various embodiments contemplated by the claimed invention include this second transmission step that is a **retransmission of the first transmitted packets.** The second transmission step references "**the**" plurality of packets introduced in the first transmission step.

In addition, this second transmitting step requires that this retransmission occur at a “second output power different from the first output power.”

Applicants respectfully submit that the Office Action erroneously states that the Arvelo reference teaches both the first and second transmission steps. In particular, the cited portions of Arvelo do not teach a retransmission of a plurality of packets at two separate power levels as the claimed invention does. In contrast, the Arvelo references instead teaches the transmission of packets in an observation window, observation of a packet error rate, and adjusting transmission power for transmission of subsequent packets. In other words, Arvelo fails to teach a transmission of a plurality of packets at a first power level and a second transmission of the plurality of packets at a second power level.

Further, the claimed embodiments require separately transmitting a plurality of packets at two different output power levels, and determining (for each output power) an error rate. Then, a desired output power is identified, based on a comparison between the determined first and second error rates. That is, the claimed embodiments measure packet error in relation to transmission of one plurality of packets by making two separate measurements, at two different power levels. Then, the two determined error rates are compared to identify desired a power level for transmissions.

In contrast, Arvelo in view of Tamura teaches using short and long observation windows to measure packet error rate, and adjusting power level to deliver a desired packet error rate. The cited references do not disclose a first and a second transmission of a plurality of packets at different power levels, the determination of a first and second error rate, and a comparison of the first and second error rates to identify a desired power level. Thus, for at least these fundamental reasons, Applicants submit that the Office Action improperly applied the cited art to the claimed invention.

## **II. Specific Rejections Under 35 U.S.C. §103**

Having set forth the above fundamental distinctions, Applicants address the rejections of the claims in the following. In order for a claim to be properly rejected under 35 U.S.C. §103, the teachings of the cited art reference must suggest all features of the claimed invention to one of ordinary skill in the art. See, e.g., *In re Dow Chemical*, 837 F.2d 469, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988); *In re Keller*, 642 F.2d 413, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981). Further, “[t]he PTO has the burden under section 103 to establish a prima facie case of obviousness.” *In re Fine, Minnesota Mining and Mfg.Co. v. Chemque, Inc.*, 303 F.3d 1294, 1299 (Fed. Cir. 2002). Applicants respectfully submit that the Office Action fails to meet this standard.

### **A. Claim 1 is Allowable Over Arvelo in view of Tamura**

The Office Action indicates that claim 1 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Arvelo in view of Tamura. Applicants respectfully traverse this rejection for at least the reason that Arvelo in view of Tamura fails to disclose, teach, or suggest all of the elements of claim 1. More specifically, claim 1 recites:

1. A method for output power dithering for improved transmitter performance, the method comprising:
  - transmitting a plurality of packets at a first output power;
  - determining a first error rate associated with the transmission of the plurality of packets at the first output power;
  - transmitting the plurality of packets at at least one second output power different from the first output power;
  - determining at least one second error rate associated with the transmission at the at least one second output power; and
  - identifying a desired output power based at least in part on a comparison between the first error rate and the at least one second error rate.

The present Office Action does not appear to address the fundamental distinction recited above as well as the arguments previously presented in response to the Office Action mailed January 8, 2007. More specifically, the Office Action appears to altogether ignore Applicants' previously presented remarks with regard to independent claim 1. It would have been helpful if the Office Action in some way addressed the distinctions between claim 1 and the cited art that were previously communicated rather than essentially restating the previously cited reasons for rejection. It may have further been helpful if the Office Action had pointed to more specific teachings of Arvelo for each separate claim element, rather than relatively global teaching, as the rejection set forth again makes it somewhat difficult for the undersigned to fully appreciate how the Examiner is interpreting the teachings of Arvelo. In addition, the Office Action recites an interpretation of the Tamura reference, but fails to relate the reference to an element of the independent claim 1. Therefore, it is further difficult for the undersigned to appreciate how the Examiner is interpreting and applying the teachings of Tamura.

Accordingly, Applicants reiterate the statements made in the Response to Office Action mailed January 8, 2007 and submit that claim 1 is patentable over the cited art. As previously communicated, Applicants respectfully submit that there is no teaching of a retransmission of packets at a second power level, and a comparison of separate error rates from the above referenced first and second transmissions in order to identify a desired output power. In contrast, the cited references teach an open loop transmission of observation windows and an adjustment of transmission power for subsequent packet transmission. Claim 1 defines two separate transmission steps. The first transmission step defines the transmitting of a plurality of packets. The second transmission step defines the transmitting of the plurality of packets. In other words, the second transmission step should be construed as a retransmission of the plurality of packets transmitted in the first transmission step, as it references transmission of "the plurality of packets."

There is no such teaching present in any of the references cited by the Office Action. Further, as noted above, this distinction was previously communicated in response to the Office Action mailed January 8, 2007, and the present Office Action fails to address this distinction in any form. Therefore, for at least the foregoing reasons, Applicants respectfully request that the rejection of claim 1 be withdrawn.

**B. Claim 2 is allowable over *Arvula* in view of *Tamura***

Independent claim 2 is allowable over the cited art for at least the same reasons noted above in reference to independent claim 1. In rejecting claim 2, the Office Action again merely quotes the entire claim, and then cited the same global teachings of Arvelo that were cited to reject features of claim 1. In addition, the Office Action cited an interpretation of Tamura but fails to relate the teachings to an element of claim 2. Accordingly, for reasons analogous to those recited above in reference to independent claim 1, Applicants respectfully submit that claim 2 is allowable over the cited art.

**C. Claims 3-9 are allowable over *Arvula* in view of *Tamura***

Applicants submit that dependent claims 3-9 are allowable for at least the reason that these claims depend from an allowable independent claim. See, e.g., *In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988). In addition, claim 4 also recites:

4. The method according to claim 2 further comprising:  
***transmitting the plurality of packets at a third output power*** if the second error rate is not lower than the first error rate, wherein the third output power is different from the first output power and the second output power;  
determining a third error rate associated with the transmission at the third output power; and  
adjusting the third output power if the third error rate is lower than the first error rate.

(*Emphasis added*). As noted above in reference to claims 1 and 2, the cited references fail to disclose the step of a retransmission of the plurality of packets. Therefore, because the

references fail to teach even a second transmission step, the references must also fail to teach the claimed third transmission step emphasized above. In addition, as a result, the references fail to disclose the determination of a third error rate and the adjustment of the third output power. Therefore, the rejection of claim 4 should be withdrawn for at least this reason in addition to its dependency from independent claim 2.

**D. Claims 10-12 are Allowable Over Arvelo in view of Tamura**

Claims 10-12 are allowable over the cited references for at least the reasons noted above in reference to claim 1. These claims contain analogous limitations to those of independent claim 1 and were rejected under similar grounds as well. Therefore, Applicants submit that claims 10-12 are likewise allowable.

**CONCLUSION**

In light of the foregoing amendments and for at least the reasons set forth above, Applicants respectfully submit that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested.

Any other statements in the Office Action that are not explicitly addressed herein are not intended to be admitted. In addition, any and all findings of inherency are traversed as not having been shown to be necessarily present. Furthermore, any and all findings of well-known art and Official Notice, or statements interpreted similarly, should not be considered well-known for the particular and specific reasons that the claimed combinations are too complex to support such conclusions and because the Office Action does not include specific findings predicated on sound technical and scientific reasoning to support such conclusions.

If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

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